

3. Boiler Safety Valve Additions:

Rather than add new safety valves, we have determined that we can replace one existing electro relief valve (ERV) with one main steam safety valve on each unit. This will address reliability concerns with the existing valves and accommodate the planned increase in generation capacity.

4. Generator Cooling Enhancement:

IPSC intends to upgrade the current generator and stator cooling systems.

5. Isophase Bus Cooling Enhancement:

The 26kv generator electrical bus feeding the main step-up transformer will be upgraded to enhance the current isophase bus duct cooling systems.

6. Large Motor Bus Loading Equalization:

We plan to equalize the loading between the large and small motor bus. Due to limited tap adjustment capability on the auxiliary transformers feeding these load centers, several motors will be moved from one supply to the other in order to maintain required motor terminal voltages as unit output is increased.

7. Boiler Feed Pump Performance Upgrade:

The boiler feed pump will be enhanced with improved bearing housings, flow path smoothing, and impeller clearance modifications to provide increased pump output and reliability.

8. Main Step-up Transformer Cooling:

The step-up transformers will be modified to increase the transformer cooling system capacity for better temperature control of the transformer oil, core, and housing.

9. High Pressure Heater Drain Line Modifications:

High pressure heater drain lines will be modified to eliminate resonant vibration at increased load.

10. Boiler Modifications:

A comprehensive study was performed by the manufacturer of the boilers (Babcock & Wilcox). This study reviewed all aspects of boiler operation at the new turbine output levels. The study also included evaluation of current technologies and operating practices for minimizing emissions, without the need to replace burners. The study recommended addition of surface area specific to primary superheat section. We intend to add 24 rows of superheat tubes across the full back-pass (convective section) of each boiler. This modification will help eliminate transient temperature anomalies and provide stable and efficient operation at the new higher rating.

11. Circulating Water Makeup Modifications: